

We claim:

1. A method for determining a patient's predisposition to develop coronary artery  
5 disease, comprising:

- a. isolating DNA from a patient; and
- b. analyzing the DNA to detect the presence of the KL-VS allele.

2. The method of claim 1 wherein detection of the KL-VS allele indicates the  
10 patient is predisposed to develop coronary artery disease.

3. A method of claim 1, wherein the detection of the KL-VS allele is  
characterized by diagnostic Mae III restriction fragments of 265 and 185 basepairs.

15 4. The method of claim 1, wherein detecting the KL-VS allele comprises  
RFLP analysis of a nucleic acid.

5. The method of claim 1, wherein detecting the KL-VS allele comprises  
amplification of a nucleic acid.

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6. The method of claim 1, wherein the DNA is analyzed by:
- a. amplifying the DNA in a polymerase chain reaction to produce an amplification  
product;
  - b. treating the amplified DNA with one or more restriction fragment enzymes; and
  - 25 c. size fractionation of the amplification products.

7. The method of claim 6, wherein the polymerase chain reaction is  
performed with one or more oligonucleotides selected from the group consisting of:  
sense primer 5' AGGCTCATGCCAAAGTCTGG 3' (SEQ ID No: 7); and  
30 antisense primer 5' GTTTCATGATGAACTTTTGAGG 3' (SEQ ID No: 8).

8. The method of claim 7, wherein said one or more oligonucleotides are detectably labeled.

5 9. A method of predicting increased propensity for coronary artery disease in a patient, comprising:  
detecting in a patient the presence of at least one copy of the KL-VS allele;  
wherein detecting said allele indicates that said patient has an increased propensity for coronary artery disease.

10 10. A method for treating a patient suffering or susceptible to coronary artery disease, comprising:  
selecting a patient that has a the KL-VS allele; and  
treating the selected patient for coronary artery disease.

15 11. The method of claim 10 wherein the selected patient is treated by administering a therapeutic agent for coronary artery disease.

12. The method of claim 10 wherein the selected patient undergoes surgery for treatment.

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13. The method of claim 10 wherein the selected patient undergoes a lifestyle change for treatment.

14. A diagnostic kit for coronary artery disease comprising means for  
25 analyzing DNA of a patient to detect the presence of the KL-VS allele.

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